

**REMARKS**

This Amendment is in response to the Office Action date May 28, 2008. Each issue in the Action is addressed below.

***§103 Rejections***

Claims 21-25, 29, 30 and 39-41 were rejected under 35 USC §103(a) as being unpatentable over Weber et al. (US 5759172) in view of Abele et al. (US 6010480). The Office Action indicates that 1) Weber discloses a balloon with at least three T-shaped structures and 2) Weber does not disclose that the structures maintain the T-shaped wings in the contracted or folded condition of the balloon. The Office Action also indicates that Abele teaches a balloon fold having a structure with a base and wings extending in opposite directions from the base. Therefore, the Office Action asserts that it would have been obvious to one of ordinary skill in the art at the time the invention was made to fold the balloon structures of Weber in the manner taught by Abele.

Applicant disagrees. It would not have been obvious to one skilled in the art to make the asserted combination and, moreover, the combination would not have all of the elements of the above claims.

Not only are the folding patterns in the cited references different, the resulting expanded balloons are different. The reasons for using the different folding patterns in the two patents are different and the Office Action does not identify any reason that would have prompted a person of ordinary skill in the art to combine the elements as described in the rejection.

Weber et al. teach a balloon having an expanded state, as shown below in figure 3, and a contracted state, as shown below in figure 4. As can be seen in figure 4, pre-formed lobes 27 are folded down around the catheter in a singular direction. The reference teaches that “[b]y rotating the balloon member 26 in the direction indicated by the arrow, the unexpanded lobes are folded against the basic body so that at the distal end the catheter will obtain a relatively small cross-section.” (Col. 3, lines 30-31) As can be seen, between the lobes 21, 27, there are stiff sections 16 that do not expand such that the expanded state of the balloon has formed lobes.

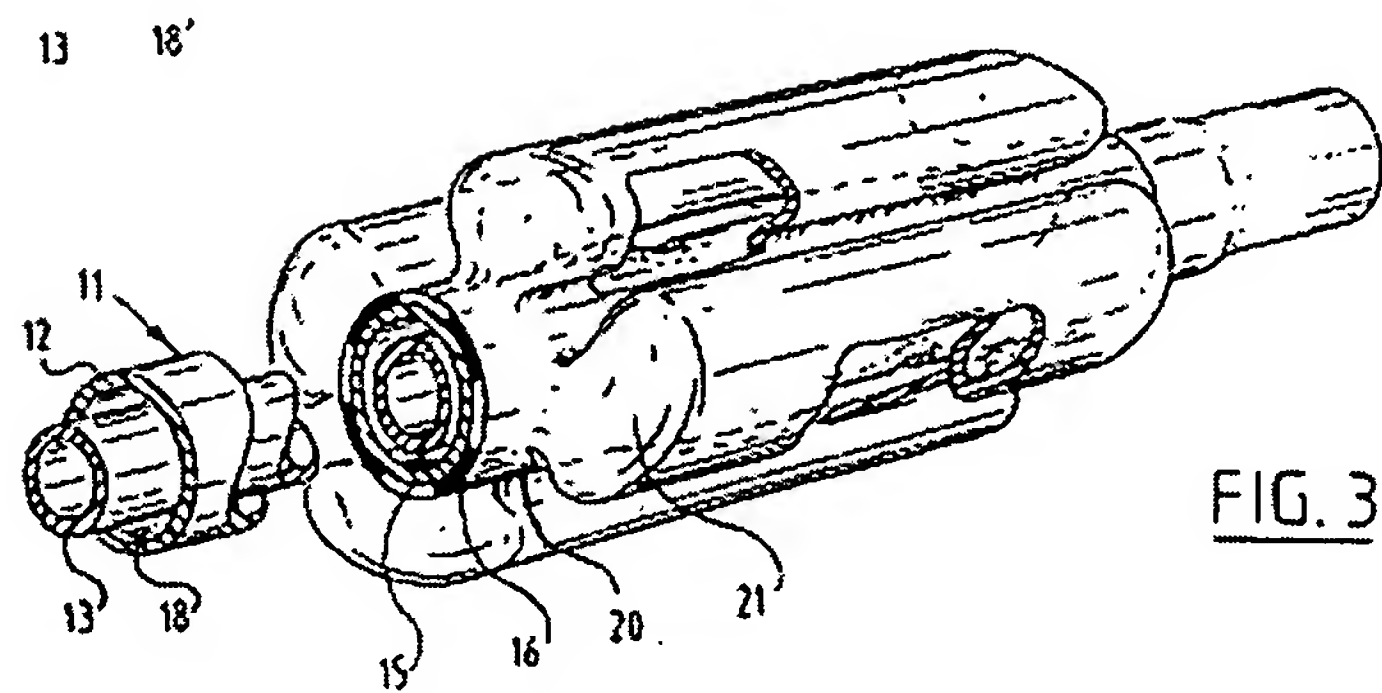


FIG. 3

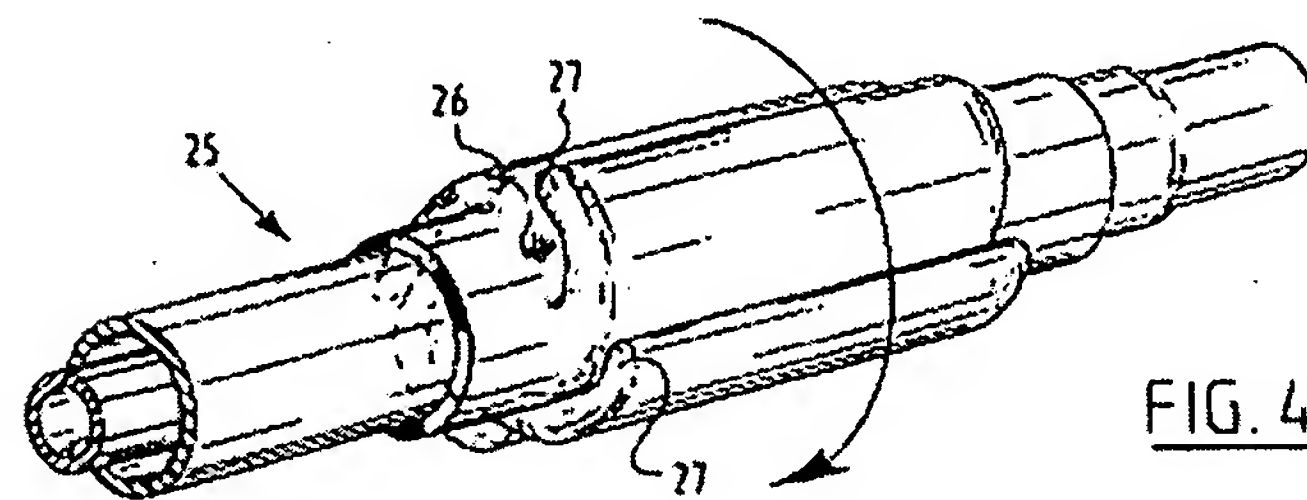


FIG. 4

Abele et al. teach a balloon having an expanded state, as shown below in figure 4, and a contracted state, as shown below in figure 2. As can be seen, in its contracted state folds 25 and 26 extend almost completely around the central portion. Abele et al. teaches that there is a

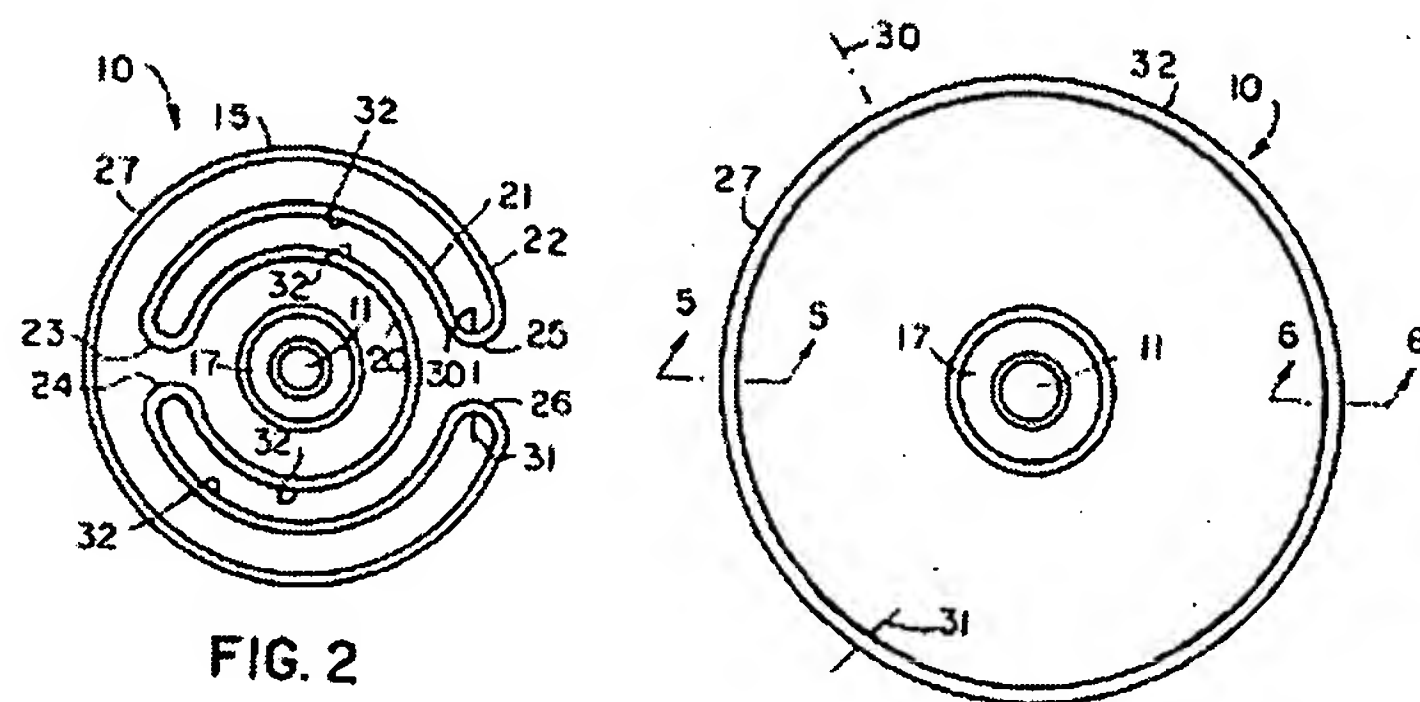


FIG. 2

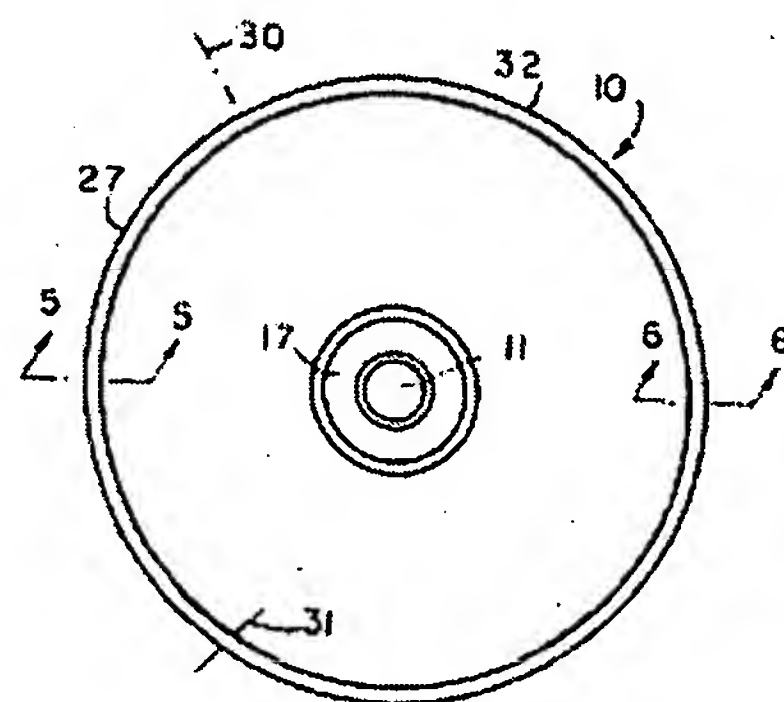


FIG. 4

reason for the folds 25, 26, to extend all the way around such that there is a singular outer surface. This singular outer surface is treated to have a lower coefficient of friction to facilitate delivery leaving the remainder of the outer surface when the balloon is expanded with a higher coefficient of friction. At col. 5, line 61, to col. 6, line 21, it is described as follows:

In accordance with this invention, a first integral exterior surface portion, or surface 27, of the outer layer 22 between points marked by the intersection of the axes 30 and 31 with the folds 25 and 26, respectively, is treated to have a first coefficient of sliding that facilitates transferring the balloon 15 across a lesion. The second or remaining integral exterior surface 32 has a greater coefficient of sliding friction. As will

## 6

be apparent, the second surface portion, or surface 32, angularly displaced from the first exterior surface 27, also has a greater surface area than the first surface 27.

When the balloon 15 expands to the configuration shown in FIGS. 3 and 4, all of the exterior surfaces 27 and 32 are exposed. However, the second surface 32 with its greater coefficient of friction and greater area dominates, so it increases the overall coefficient of friction for the expanded balloon 15 and is substantially determinative of the overall friction exerted by the balloon 15 against any adjacent vessels. Thus the coefficient of friction for the entire balloon 15 in its expanded form is greater than the coefficient in the collapsed or compact form. Consequently, the balloon 15 exhibits different coefficients of friction in its compacted and expanded forms. If the exterior surface 27 is treated to reduce its coefficient of friction, the balloon 15 has a low coefficient of sliding friction in its compact form that facilitates its placement at a lesion. As the balloon 15 expands, its overall coefficient of friction increases as the surface 32 is exposed, so the balloon 15 retains its position within a patient's vessel during and after inflation.

Abele et al. teaches extending the folds 25, 26 all the way around.

Abele's folding method is not possible with the balloon of Weber et al. As shown above in figures 3 and 4, due to the intervening stiff sections 16 that do not expand, the folded lobes 27 do not have enough material to extend all the way around the central portion. At least for this reason, one would not use the method of Abele to fold the Weber balloon.

Weber et al. clearly teaches a method of rotating the balloon member 26 in the direction indicated by the arrow such that the unexpanded lobes are folded against the basic body in a singular direction. There is no identified reason that one would be prompted to alter this folding teaching of Weber et al. and use the folding method of Abele et al. Moreover, the folding method as taught in Abele et al. would not work with the balloons of Weber et al as discussed above.

In order to support an obviousness rejection, the combination of applied references must disclose all of the elements of the claim. Applicants maintain there is no motivation to make the proposed combination. Even if, using impermissible hindsight, one were to attempt to apply the folding method of Abele to the balloon of Weber et. al., one would, at most, be left with a balloon having a single structure (with wings) extending from the balloon and not a plurality of the structures as recited in the pending claims. As such, withdrawal of the rejection is respectfully requested.

**Conclusion**

Based on at least the foregoing amendments and remarks, Applicants respectfully submit this application is in condition for allowance. Favorable consideration and prompt allowance of the pending claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,

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